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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,849	07/24/2001	Erol Basturk	P4507	5888

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EXAMINER

POLLACK, MELVIN H

ART UNIT PAPER NUMBER

2145

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/912,849	Applicant(s) BASTURK, EROL	
	Examiner Melvin H. Pollack	Art Unit 2145	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>see attached office action</u> .       |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 25 August 2005 has been entered.

### ***Response to Arguments***

2. Applicant's arguments filed 25 August 2005 have been fully considered but they are not persuasive. An analysis of the arguments is given below.
3. The applicant's primary argument appears to be that administrative weight is "not a 'cost' value as known in the art. (P. 8, lines 17-19)." However, the applicant fails to provide a definition of "forwarding costs" and "link costs" and further fails to explain why the administrative weight does not meet this standard. Even if the administrative weight were truly a dimensionless value (P. 9, line 1) and/or an administrator assigned arbitrary value (col. 9, lines 10-12), it would still fulfill the definition of a cost as the examiner understands the term. As the applicant admits, it is used to affect the load balancing decision and further affect the desirability of using a certain path (P. 8, lines 27-29), and thus fulfills the functionality of a cost.

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4. According to Basso, “the forward and reverse restrictive costs are respectively inversely proportional to the forward and reverse bandwidths requested by the incoming connection.

Using these parameters and taking into account the additive cost (e.g. the administrative weight) associated to each link of the network, the path determination process of the present invention determines the best path from the source node to the destination node, that is, the path that is widest in terms of restrictive cost and shortest in terms of additive cost while still satisfying the requested parameters of the proposed connection (col. 5, lines 40-52).” In this case, the administrative weight may consist of a variety of items, including “path length (col. 5, lines 5-10),” “hop count (col. 11, lines 3-15),” or even the whims of the network operator to encourage one path over another (col. 5, lines 20-30).” “A higher value describes a link or node which is less desirable for use. The administrative weight of a path is defined as the sum of the administrative weights of the links and nodes contained in the path. Both the available bandwidth and the administrative weight characteristics associated to each link of the network are stored in the topology database. For the purpose of simplification, the costs associated to each link will be referred hereinafter to as restrictive cost (forward and reverse) and *additive cost*, but it is clear that the terms restrictive cost and additive cost respectively shall be construed as encompassing *any type of link characteristics* that are respectively restrictive or additive in nature (col. 5, lines 23-35).” The purpose of the additive costs (administrative weights) is to make a particular path “more expensive” than other paths, and thus encourage traffic on the other paths (col. 8, line 45 – col. 9, line 60), thus resulting the manipulation of restrictive costs and resulting in load balancing. While it is true that the administrative cost is calculated from a

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variety of other costs (col. 10, lines 20-40), it still operates as a cost, and thus fulfills the definition.

5. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the role of the network administrator) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). While the claims do make some mention of the network administrator's role, limitations need to be added to achieve the role described in the remarks, and further description regarding the differences between Basso's administrator and applicant's administrator are also needed.

6. For the reasons above, the rejection is maintained.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 3-8, 12-22, 24, 26, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Basso et al. (6,370,119).

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9. For claim 1, Basso teaches a control system (abstract) for controlling data flow over data paths on a data-packet-network according to specific destinations known in the network (col. 1, line 5 – col. 3, line 10) comprising:

- a. A network monitoring system (Fig. 1, #11; Fig. 2) for monitoring network performance parameters (Fig. 2, #27; col. 4, lines 8-45);
- b. A network access system (Fig. 1) for accessing specific nodes in the network (col. 3, line 40 – col. 4, line 8); and
- c. A control software executable on the network access system (Fig. 2, 27) for assigning and changing cost parameters at selected nodes in the network (Fig. 3, #31);
- d. Characterized in that a network administrator monitoring the network or portion thereof uses the network access system and control software to assign and implement cost values at the selected nodes (col. 4, line 30 – col. 5, line 50), the values associated individually with a specific destination or destinations (Fig. 3, #31), the values establishing forwarding costs to be incurred at the selected nodes, and link costs to be incurred per data link between the nodes (col. 4, line 60 – col. 5, line 50) such that manipulation of such cost value assignments (Figs. 7 and 8) enables load balancing of data traveling through the network (Fig. 3, #33 and 34).

10. For claim 3, Basso teaches that the network monitoring system is a computer station having network connectivity to the network or portion thereof being monitored (col. 4, lines 30-35).

11. For claim 4, Basso teaches that the network access system is a computer station having connectivity to the network or portion thereof to be accessed (col. 3, line 65 – col. 4, line 5).

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12. For claims 5, 12, Basso teaches that the cost values are incorporated in a distributive algorithmic computation (col. 1, lines 40-55) to compute shortest path to the associated destination (col. 1, lines 20-30; col. 2, lines 40-60).

13. For claims 6, 8, Basso teaches that the particular node assigned the particular cost values reports those values to all neighboring nodes up-line from the particular node (Fig. 5).

14. For claim 7, Basso teaches that the reported values are used in a distributive computation at the nodes to compute shortest path to a destination (Fig. 7).

15. For claim 13, Basso teaches that at least one cost parameter is a forwarding cost through the affected node and is set to a value of infinity (Fig. 6).

16. For claim 14, Basso teaches that at least one cost parameter is an output link cost associated with the particular destination (Fig. 4).

17. Claim 15 is drawn to the limitations in claims 13 and 14. Therefore, since claims 13 and 14 are rejected, claim 15 is also rejected for the reasons above.

18. For claim 16, Basso teaches that installation is performed by software remotely (col. 5, lines 55 – col. 6, line 42).

19. For claim 17, Basso teaches that reporting the at least one cost parameter to the neighboring nodes causes a complete bypass computation of the affected node particular to data routed to the stated destination (col. 8, lines 15-45).

20. For claim 18, Basso teaches that reporting the at least one cost parameter to the neighboring nodes causes a maximal utilization of the affected node particular to data routed to the stated destination (col. 11, lines 3-13).

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21. For claim 19, Basso teaches that reporting the at least one cost parameter to the neighboring nodes causes a partial utilization of the affected node particular to data routed to the stated destination (col. 11, lines 3-13).

22. For claim 20, Basso teaches that the assignment and implementation of cost values at routing nodes is pre-configured by the network administrator (Fig. 3, #33) including provision and implementation of a table or tables (col. 6, line 5; routing table) containing optional forwarding costs per destination (Fig. 4) and at least one threshold value applicable to the physical link conditions as may be detected by the node (Figs. 6 and 7) wherein detection by the node of an occurrence of the at least one threshold value on any of the physical links triggers an automated reassignment of an appropriate forwarding cost per selected destination using the affected link from the table of optional forwarding costs (Fig. 5, #57 and #58).

23. For claims 21, 26, Basso teaches that the threshold value equates to general traffic load conditions over a physical link (col. 5, lines 40-45; col. 8, lines 15-45).

24. For claims 22, 24, Basso teaches that the reassigned forwarding costs triggered by occurrence of the threshold are computed along with other costs and advertised to neighbors pertinent to data flows containing a destination label or labels responsible for the preponderance of the load (Fig. 5).

25. For claim 27, Basso teaches that the steps are wholly automated and performed within the selected node (Fig. 2, #27).

***Claim Rejections - 35 USC § 103***

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claims 2, 9-11, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basso as applied to claims 1, 8, 24 above, and further in view of Zaumen et al. (6,658,479).

28. For claim 2, Basso does not expressly disclose that the data-packet-network (Fig. 1, #10) is the Internet network. Zaumen teaches a method (abstract) of determining routing costs and performing load balancing techniques (col. 1, line 10 – col. 2, line 10) and further that the data-packet-network is the Internet network (col. 1, line 13). At the time the invention was made, one of ordinary skill in the art would have combined the two inventions by allowing Basso's invention to connect to the Internet for the purpose of allowing connections to third-party resources (col. 1, lines 50-57), i.e. to allow connections to network nodes on the Internet, such as previously established sources of digital data or utilization devices (Basso, col. 3, lines 65-67).

29. Claims 9, 25 are drawn to a method that effectively describes the activities undertaken by the hardware system as drawn in claim 2. It is well known in the art that the underlying method of a given system is functionally equivalent to said system. Therefore, since claim 2 is rejected, then claim 9 is also rejected for the reasons above. A teaching regarding the method/system equivalence is available upon request.

30. For claim 10, Basso does not expressly disclose that the node is a router accessed by a computer station having connectivity to the network or portion thereof to be accessed. Brasso does teach that certain network nodes have similar functionality (col. 3, lines 53-55). Zaumen teaches this limitation (col. 2, line 30 – col. 3, line 65; esp. col. 2, line 60). At the time the invention was made, one of ordinary skill in the art would have combined the two inventions

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because congestion at the routers is one of the main causes of large delays and hence should be taken into account (col. 1, lines 15-20 and 55-65).

31. For claim 11, Basso does not expressly disclose that the router is accessed as a result of need established through network monitoring. Zaumen teaches this limitation (col. 3, lines 35-65). At the time the invention was made, one of ordinary skill in the art would have combined the two inventions because congestion at the routers is one of the main causes of large delays and hence should be taken into account (col. 1, lines 15-20 and 55-65).

32. Claims 23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basso as applied to claims 1 and 24 above, and further in view of Aviani et al. (6,789,125).

33. For claims 23, 28, Basso does not expressly disclose that the data-packet-network is internal to a data router and the nodes are computerized network cards connected together to form the internal network of the node. Aviani teaches a method (abstract) of load balancing (col. 1, line 15 – col. 4, line 26) for which an embodiment may be the internal network (col. 14, line 65 – col. 16, line 57). At the time the invention was made, one of ordinary skill in the art would have combined the two inventions to allow for greater efficiency within a router (col. 15, lines 10-25).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H. Pollack whose telephone number is (571) 272-3887.

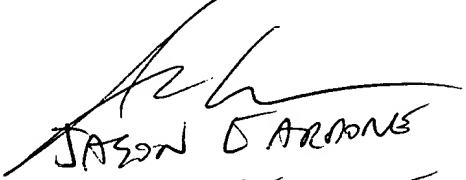
The examiner can normally be reached on 8:00-4:30 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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JASON CARDONE  
SPE AV 2145